# SEQUENCE LISTING

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<110> Lawrence
      Lyn, Dyster
      Jana, Frustaci
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<120> Detection and Treatment of Breast Cancer
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PatentIn version 3.0 <170>

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Xaa at position 70 is either Arg or Gly <223>

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Xaa at position 91 is either Lys or Asn `<223>

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 Cys Ard Ile Gln Arg Ala Asp Gly Asp Cys Asp Leu Ala Ala Val Ile
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     50
 Leu His Val Lys Arg Xaa Arg Ile Cys Val Ser Pro His Asn His Thr
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Val Lys Gln Trp Met Lys Val Gln Ala Ala Xaa Lys Asn Gly Lys Gly
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 Asn Val Cys His Arg Lys Lys His His Gly Lys
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                                  105
 Ala His Gln Gly Lys His Glu Thr Tyr Gly His Lys
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 Gly Asp Cys Asp Leu Ala Ala Val Ile Leu His Val Lys Arg Xaa Arg
 Ile Cys Val Ser Pro His Asn His Thr Val Lys Gln Trp Met Lys Val
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Gln Ala Ala Xaa Lys Asn Gly Lys Gly Asn Val Cys His Arg Lys

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                                                                      120
 cattgcctcc agctgttgca cggaggtttc acatcatatt tccagaaggc tcctggaaag
                                                                      180
 agtgaatatg tgtcgcatcc agagagctga tggggattgt gacttggctg ctgtcatcct
                                                                      240
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tcatgtcaag cgcngaagaa tctgtgtcag cccgcacaac catactgtta agcagtggat 300 360 gaaagtgcaa gctgccaana aaaatggtaa aggaaatgtt tgccacagga agaaacacca tggcaagagg aacagtaaca gggcacatca ggggaaacac gaaacatacg gccataaaac 420 480 tccttattag agaatctaca gataaatcta cagagacaat cccccaagtg gacttggcca 540 600 atattggttt ttaaaaaatg aacaattgtg ccgtatgcaa atgtacccaa taatatactc cactggaaaa tgaaatgaaa aaannatact ggctgggtat ggtgggtccc cccttttatc 660 720 ccannnnctt cgggaggcag aggcaggagg atcacttgag accaggantt ngagacnagc 780 tngggcaaa anagcaanga cntcatttnt acaaacnaaa aaaaannttg gcccggcntg 840 gtagnacttg cntataatcc cagcnacatg ggaggtngag gtgggaggat cacttgagtc gggngagtt ngaggtngca gtgagcagen tgggtgacag aatgnagacc ntgtctctaa 900 Maaataataat aataatgata gtgtatatct tcatataata ttttaagnag gagcatatag 960 1020 atataacttn ctcccaactt tttaattata gttttccaaa cttacagaga agttaaaaga atggtacaat gaacatctat atatctttca ccacaatatt aatcattgtt aatattgtgc 1080 cacatttgct ttctctctcc tctcttggta ggggttncaa tataaaatat tataactttt 1140 aaaatatatc ttgttttgct aaccattgga aaataagttg caaaaatcat gacacttcac 1200 Ecctagtttc ttttnggtgt tataacttga cataccctaa aataaagaca tttttctaca 1260 1320 taatcacctt atcagtttta tacctaaaaa attaataatt tcatctaata tattccatat tcaaattttc ccaactattt agagagcatt ttatgtagtt tttttttcac tccagtaatc 1380 aatcaaggtn gacatacata ttgcaaataa ttgttatttt tctttaatat ctttcaatct 1440 1500 aagaaagttc ctctgtcttt tttttttaat ttttaaaatt attttgttga gggagggtct tgctgtgtct tccaggctgg agtgcagtgg cacaattttg attttggctc actgaagcct 1560 1620 caactttagg gctcaagcaa tcctcccacc tcagcctncc cgagtatctg ggatcaaggt 1680 gcatacccac cacacctggc taattttgtt tattttttgt agagacaggg tctcactatg 1740 ttgcccaggt tgatctcaaa ctcctgggct caagcgatcc tcccacctta gcctcccaaa

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                                                                        180
getgetgtea teetteatgt caagegenga agaatetgtg teagecegea caaccatact
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                                                                        300
aggaagaaac accatggcaa gaggaacagt aacagggcac atcaggggaa acacgaaaca
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                                                                         120
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                                                                         180
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                                       10
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              20
                                   25
                                                        30
 Ala Tyr His Tyr Pro Ile Gly Trp Ala Val Leu Arg Arg Ala Trp Thr
                                                    45
                               40
         35
```

Tyr Arg Ile Gln Glu Val Ser Gly Ser Cys Asn Leu Pro Ala Ala Ile Phe Tyr Leu Pro Lys Arg His Arg Lys Val Cys Gly Asn Pro Lys Ser 75 80 65 Arq Glu Val Gln Arg Ala Met Lys Leu Leu Asp Ala Arg Asn Lys Val 85 Phe Ala Lys Leu His His Asn Met Gln Thr Phe Gln Ala Gly Pro His 110 105 Ala Val Lys Lys Leu Ser Ser Gly Asn Ser Lys Leu Ser Ser Ser Lys 120 Phe Ser Asn Pro Ile Ser Ser Ser Lys Arg Asn Val Ser Leu Leu Ile 135 Ser Ala Asn Ser Gly Leu \_145 **示**210> 21 رِدِ211× 95 **212**> PRT <u>\_</u><213> Homo sapiens <u>~</u>400> 21 Met Cys Cys Thr Lys Ser Leu Leu Leu Ala Ala Leu Met Ser Val Leu Leu Leu His Leu Cys Gly Glu Ser Glu Ala Ser Asn Phe Asp Cys Cys 30 20 25 Leu Gly Tyr Thr Asp Arg Ile Leu His Pro Lys Phe Ile Val Gly Phe 45 35 40 Thr Arg Gln Leu Ala Asn Glu Gly Cys Asp Ile Asn Ala Ile Ile Phe 50 55 His Thr Lys Lys Leu Ser Val Cys Ala Asn Pro Lys Gln Thr Trp 80 70 65 Val Lys Tyr Ile Val Arg Leu Leu Ser Lys Lys Val Lys Asn Met 90 85 <210> 22

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Ser Leu Gln His Ile His Ala Ala Arg Gly Thr Asn Val Gly Arg Glu 20 25 30

Cys Cys Leu Glu Tyr Phe Lys Gly Ala Ile Pro Leu Arg Lys Leu Lys 35 40 45

Thr Trp Tyr Gln Thr Ser Glu Asp Cys Ser Arg Asp Ala Ile Val Phe 50 55 60

Val Thr Val Gln Gly Arg Ala Ile Cys Ser Asp Pro Asn Asn Gln Arg 65 70 75 80

Val Lys Asn Ala Val Lys Tyr Leu Gln Ser Leu Glu Arg Ser 85 90

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Cys Cys Phe Ser Phe Ala Glu Gln Glu Ile Pro Leu Arg Ala Ile Leu
35 40 45

Cys Tyr Arg Asn Thr Ser Ser Ile Cys Ser Asn Glu Gly Leu Ile Phe 50 55 60

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Thr Asn Ile Gln Cys Pro Lys Glu Ala Val Ile Phe Lys Thr Lys Arg
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Thr Cys Cys Phe Thr Phe Ser Ser Lys Lys Ile Ser Leu Gln Arg Leu

45

Lys Ser Tyr Val Ile Thr Thr Ser Arg Cys Pro Gln Lys Ala Val Ile
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Tyr Arg Arg Ile Thr Ser Gly Lys Cys Pro Gln Lys Ala Val Ile Phe 50 55 60

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-Pro

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Thr Cys Cys Tyr Arg Phe Ile Asn Lys Lys Ile Pro Lys Gln Arg Leu 35 40 45

Glu Ser Tyr Arg Arg Thr Thr Ser Ser His Cys Pro Arg Glu Ala Val 50 55 60

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Pro Lys Leu

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Ala Ser Tyr Arg Arg Ile Thr Ser Ser Lys Cys Pro Lys Glu Ala Val
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Ile Phe Lys Thr Ile Val Ala Lys Glu Asp Cys Ala Asp Pro Lys Gln
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Pro Lys Thr
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Leu Cys Ala Pro Ala Ser Ala Ser Pro Tyr Ser Ser Asp Thr Thr Pro
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 Cys Cys Phe Ala Tyr Ile Ala Arg Pro Leu Pro Arg Ala His Ile Lys
                                                   45
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 Glu Tyr Phe Tyr Thr Ser Gly Lys Cys Ser Asn Pro Ala Val Val Phe
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65 70 75 80 Lys Trp Val Gln Asp Tyr Ile Lys Asp Met Lys Glu Asn 85 <u></u> 210> 31 <u>r</u><211> 92 <u></u><212> PRT <u>m</u><213> Homo sapiens <u>=</u><400> 31 Met Lys Leu Cys Val Thr Val Leu Ser Leu Leu Met Leu Val Ala Ala Phe Cys Ser Pro Ala Leu Ser Ala Pro Met Gly Ser Asp Pro Pro Thr 25 Ala Cys Cys Phe Ser Tyr Thr Ala Arg Lys Leu Pro Arg Asn Phe Val Val Asp Tyr Tyr Glu Thr Ser Ser Leu Cys Ser Gln Pro Ala Val Val

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Phe Gln Thr Lys Arg Ser Lys Gln Val Cys Ala Asp Pro Ser Glu Ser

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Leu Thr Lys Arg Ser Arg Gln Val Cys Ala Asp Pro Ser Glu Glu Trp
65 70 75 80

Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser Lys Pro Gly Val Ile Phe

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Val Tyr Thr Ser Trp Gln Ile Pro Gln Lys Phe Ile Val Asp Tyr Ser 35 40 45

Glu Thr Ser Pro Gln Cys Pro Lys Pro Gly Val Ile Leu Leu Thr Lys 50 55 60

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104